

REMARKS

Claims 1-20, 32-34, and 38-52 are currently pending. By this Amendment, claims 2-3 and 32-34 have been cancelled, and no new claims have been added. Accordingly, claims 1, 4-20, and 38-52 are currently at issue.

I. Rejections Under 35 U.S.C. § 112

Claims 1-6, 8, 9, 32-34, 38-42, and 44-52 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for reciting a “hot filled” container in the preambles thereof. Accordingly, claims 1, 38, and 39 have been amended to address the Examiner’s rejections on this ground.

Claims 1-9, 32-34, 51, 52, 38, and 39-50 were rejected under 35 U.S.C. § 112, first paragraph, as being based on new matter / non-enabling disclosure. Applicant has amended the claims to address these rejections, as detailed below.

A. Claim 1

With respect to claim 1, the Examiner objects to the phrase, “the entire periphery of the body portion has a smooth outer contour uninterrupted by ribs, stress absorbing strips, raised areas, or recessed areas.” Applicant has amended claim 1 to address the Examiner’s rejection on this ground. Amended claim 1 now clarifies that the smooth panel sections and smooth corners define a continuous outer surface of the body portion that is smooth. In paragraph 9 of the specification, the panel sections are defined as “smooth” (“smooth sides”), and in paragraph 31 and originally filed claim 2 of the specification, the corners are defined as smooth. If the specification defines the panels and the corners as “smooth,” then it logically follows that the surface created by those panels and corners is also smooth. The drawings likewise illustrate such a smooth outer surface created by panels (30) and corners (34). Additionally, the drawings also illustrate that the panels and corners create a continuous surface. Thus, this feature is supported by the specification.

In response to the questions raised by the Examiner, the specification and drawings of the present Application clearly indicate that the term “smooth” is used in accordance with its common meaning, which implies the lack of identifiable surface interruptions, disruptions, and

other such structures. To the extent the Examiner is unclear as to the meaning of “smooth,” the Examiner is referred to FIG. 1 of the Application, which illustrates the smooth outer surface of the body portion created by the panels (30) and corners (34).

Likewise, claim 1 has been amended to recite that the outer surface of the body portion is uninterrupted and devoid of ribs, stress absorbing strips, raised areas, or recessed areas, as disclosed in paragraphs 9 and 31. FIG. 1 illustrates such an uninterrupted outer surface.

To the extent that the Examiner objects to the use of the term “flat” to describe the panels, Applicant submits that the panels shown in the drawings of the present Application comport with the common usage of the term “flat panels” in the industry. However, to address the Examiner’s rejections, Applicant has amended claim 1 to recite that the panels have “virtually flat” outer surfaces, as stated in paragraph 16 of the specification.

The Examiner states that the specification does not make a clear distinction between a rib and a corner. Applicant disagrees. A corner, as used in the specification and widely and consistently throughout the art, generally describes a transition or meeting between two nonparallel surfaces. A rib, as used in the specification and widely and consistently throughout the art, generally describes an identifiable, disruptive surface structure. These two terms are not used interchangeably in Applicant’s specification, nor are they used interchangeably elsewhere in the art, to Applicant’s knowledge. To the extent that the Examiner believes that Sugiura (4,749,092) uses “ribs” to mean “corners,” Applicant responds that Sugiura has corners having ribs, as the corners where the panel sections (7) of Sugiura meet have defined surface structures (6), as shown in FIG. 1. In contrast, Applicant’s container has no defined surface structures at the corners.

B. Claim 38

With respect to claim 38, the Examiner vaguely states that the claim “includes the issue of the rectangular panels and the nature of the corners.” Applicant assumes that, with respect to the corners, the Examiner is referring to the rib/corner definitions discussed above. If so, Applicant submits that this matter has been addressed above. With respect to the term, “rectangular,” Applicant submits that claim 38 does not recite rectangular panels. Rather, claim 38 recites that the body section is “generally rectangular in transverse cross section.” This

feature is recited in paragraph 17 of the specification, as well as the claims as originally filed. If the Examiner bases the rejections on other grounds, Applicant respectfully requests more specificity, in order to enable Applicant to respond.

C. Claim 39

With respect to claim 39, the Examiner states that the claim shares the issues raised above in regard to the smooth outer contour. Accordingly, Applicant has amended claim 39 to address the Examiner's rejections similarly to claim 1, now reciting that the smooth panels and smooth corners define a continuous outer surface that is "smooth, uninterrupted, and devoid of structural surface features."

Accordingly, the Examiner's rejections under § 112 have been addressed.

II. Rejections Under 35 U.S.C. § 103

In the Office Action, claims 1-9, 32, 33, 34, 38-45, and 52 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Nos. 5,222,615 ("Ota '615"), 5,092,474 ("Leigner"), 5,762,221 ("Tobias"), and 6,044,997 ("Ogg"), in view of U.S. Patent Nos. 4,749,092 ("Sugiura"), 5,238,129 ("Ota '129"), 5,740,934 ("Brady"), 4,877,141 ("Hayashi"), and 3,923,178 ("Welker"), and further in view of Wiley Encyclopedia of Packaging Technology ("Wiley"). Additionally, claims 10-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wiley in view of U.S. Patent Nos. 5,897,901 (Visioli) and 5,616,353 (Wright). Further, claims 46-51 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the references cited above with respect to claims 1 and 39, further in view of Visioli and Wright. These rejections are addressed below.

A. Claims 1, 4-9 and 52

Applicant submits that, in view of the amendments to claim 1 herein, claims 1, 4-9 and 52 are patentable over the cited references.

Claim 1, as amended, includes, among other elements, "the smooth outer surfaces of the panel sections and the smooth corners define a continuous outer surface of the body portion that is smooth, uninterrupted, and devoid of ribs, stress absorbing strips, raised areas, or recessed areas." Applicant submits that none of the cited references discloses a container exhibiting these

elements, and also that the cited references, when taken as a whole, do not disclose, teach, or suggest designing a container containing these elements.

The Examiner refers specifically to Sugiura in the Office Action. However, the structure of the container of Sugiura is not the same as recited in claim 1. The Examiner asserts that the ribs (6) of Sugiura are “nothing more than corners.” Applicant disagrees. However, even if the Examiner considers the ribs of Sugiura to be smooth, rounded corners, Applicant responds that the panel sections of Sugiura do not extend from a first horizontal ridge to a second horizontal ridge that isolate the panel sections from the bell portion and the base portion to allow the panel sections to act as vacuum panels. Contrary to the Examiner’s assertion, Applicant does not argue that “no one thought one could have flat panels, which act as vacuum panels.” Applicant clarifies its position that none of the cited references disclose creation of vacuum panels by isolating a section of the container sidewall, allowing flat panel walls to function as vacuum panels, rather than by using structural features to define vacuum panels on the sidewall. Even if the Examiner considers Sugiura to disclose a smooth outer surface without sidewall structures, Applicant responds that each of the vacuum panels is isolated individually, such as through curved tongue portions (12, 13). (See Sugiura, Col. 2, Ln. 67 – Col. 3, Ln. 6). Sugiura does not disclose isolating all of the vacuum panels by isolating the sidewall portion with a single horizontal ridge. Thus, Sugiura does not disclose the recited invention.

The other cited references, taken either alone or together, do not disclose a hot fill container having smooth panel sections and smooth corners forming a smooth outer surface devoid of ribs, stress absorbing strips, etc., as recited in claim 1. Additionally, these references do not disclose creating vacuum panels by isolating panel sections as discussed above. The collapse panels (13) in Ota ‘615 appear to be both recessed and defined on all sides by a rib or similar structural feature. (See Ota ‘615, FIG. 1). The container disclosed by Leigner contains recessed panels (26). (See Leigner, FIG. 6). The containers disclosed by Tobias and Ogg have highly structured vacuum panels (26, Tobias) (12,13, Ogg) containing both raised and recessed areas. (See Tobias, FIG. 1; Ogg, FIG. 1). The container disclosed by Ota ‘129 contains collapse panels (6) similar to those of Ota ‘615. (See Ota ‘129, FIG. 1). The containers disclosed by Hayashi all have recessed panels (3,21). (See Hayashi, FIGS. 1, 4, 7, 9, 11). Welker discloses a

container with flat panels (30, etc.), but having a sharp, angular corners rather than a continuous, smooth outer surface. (See Welker, FIG. 3). Additionally, the panels of Welker have curved tops and bottoms, similar to the panels in Sugiura. Brady does not disclose a hot fill container, but rather, discloses a container to contain a pressurized fluid which causes the sidewalls to bow outwardly (Brady, Col. 4, Lns. 45-51), and also does not disclose panels with smooth, rounded corners, forming a smooth outer surface without ribs, etc. As stated by Brady, in the unpressurized condition, the area between the panels (32) has a “decidedly angular configuration” (Brady, Col. 3, Lns. 39-43), and in the pressurized condition, the panels (32) disappear entirely to form a cylindrical outer surface (Brady, Col. 3, Lns. 37-39). Wiley also does not purport to disclose hot fill containers in the photograph on P. 83. Thus, Wiley does not disclose that the depicted containers have flexible vacuum panels.

Additionally, regarding Brady and Wiley, Applicant restates its previous arguments, in the prior Response, that it is significant that the containers disclosed by Brady and the containers shown in the photograph in Wiley are not disclosed for use as hot fill containers. Because of this, One skilled in the art, when designing vacuum panels for a hot fill container, would not look to references, like Brady and Wiley, that did not purport to provide benefits for hot fill containers. Accordingly, the teachings of Brady and Wiley are not properly combinable with those of the other cited references that involve hot fill containers.

Applicant also restates that the cited references teach away from the use of flat vacuum panels and a smooth body portion, isolated in the manner recited in claim 1, for use in hot fill containers. Thus, one skilled in the art would not be motivated to design a hot fill container with flat panels that flex to react to pressure differentials. The fact that Applicant has designed a hot fill bottle that contains flat, unstructured panels acting as vacuum panels, while still exhibiting satisfactory performance, represents an advancement over prior hot fill bottles.

Accordingly, because the Office Action does not identify all of the elements of claim 1 in the cited references, and also because the cited references teach away from the proposed combinations, no prima facie case of obviousness has been established with respect to claim 1.

Claims 4-9 and 52 depend from claim 1 and contain all the elements thereof. Thus, for the reasons described above with respect to claim 1, no prima facie case of obviousness has been established with respect to claims 4-9 and 52.

B. Claim 38

Applicant also submits that, in view of the amendments herein, claim 38 is patentable over the cited references.

Claim 38, as amended, recites that the container has two horizontal, elevated ridges “disposed around the periphery of the container,” and that “the virtually flat outer surface of each of said sidewalls extends from the first elevated ridge to the second elevated ridge and between the respective corners adjoining the sidewall.” Accordingly, the containers disclosed by Ota ‘615, Leigner, Tobias, Ogg, Ota ‘129, and Hayashi, all of which have recessed and otherwise structured panels, do not disclose such flat panels. Regarding Sugiura and Welker, even if the references disclose flat panels, neither Sugiura nor Welker discloses that the panels extend from one horizontal, elevated ridge to a second horizontal, elevated ridge. Sugiura and Welker also do not disclose that the panels are isolated from the other portions of the container by the use of single horizontal ridges, as described above with respect to claim 1. As stated above, Brady discloses panels which bow outwardly when subjected to pressure, rather than panels which bow inwardly when subjected to temperature changes. Additionally, Brady and Wiley, as stated above, do not disclose hot fill containers, and thus, are not proper for reference for the disclosure of vacuum panels in hot fill containers in forming an obviousness rejection. In particular, claim 38 recites that the claimed panels “act as vacuum panels,” and neither Brady nor Wiley discloses vacuum panels that are designed to react to negative internal pressures and temperature changes after a container is hot filled and capped.

Further, as stated above with respect to claim 1, the cited references teach away from the design of a hot fill container having flat, unstructured vacuum panels. These arguments apply equally to claim 38.

Accordingly, because the Office Action does not identify all of the elements of claim 38 in the cited references, and also because the cited references teach away from the proposed combinations, no prima facie case of obviousness has been established with respect to claim 38.

C. Claim 39

Claim 39 includes, among other elements, “wherein the smooth outer surfaces of the panel sections and the smoothly rounded corners define a continuous outer surface of the body portion that is smooth, uninterrupted, and devoid of structural surface features, wherein the continuous outer surface extends from the first horizontal ridge to the second horizontal ridge.” This is similar to the features discussed above with respect to claim 1, and for the same reasons, the cited references do not disclose this feature. Claim 39 also recites the use of single horizontal ridges to isolate the panel sections and allow them to act as vacuum panels. As stated above, the cited references also do not disclose this feature of claim 39.

Further, as stated above with respect to claim 1, the cited references teach away from the design of a hot fill container having flat, unstructured vacuum panels. These arguments apply equally to claim 39.

Accordingly, because the Office Action does not identify all of the elements of claim 39 in the cited references, and also because the cited references teach away from the proposed combinations, no prima facie case of obviousness has been established with respect to claim 39.

D. Claims 10-20

As stated in the previous Response, none of the cited references discloses the specific layered structure recited in independent claims 10-16. Applicant previously argued that there was no objective reason to modify the structures disclosed by the cited references to reach the claimed layered structure, and that there likewise was no objective reason to reverse the order of the layers disclosed in FIG. 4 of Wiley. The Office Action offers no response to these arguments. Accordingly, Applicant can do nothing further, other than restating the previous arguments. Applicant respectfully requests the Examiner’s responses to these arguments, which the Examiner believes justify the continued rejection of claims 10-20, in order to enable productive further prosecution of the Application. Alternatively, if the Examiner has no such response, Applicant respectfully requests allowance of claims 10-20.

E. Claims 46-51

Claims 46-50 depend from claim 39 and contain all the elements thereof. Likewise, claim 51 depends from claim 1 and contains all the elements thereof. Accordingly, for the reasons stated above with respect to claims 1 and 39, Applicant submits that claims 46-51 are patentable over the cited references. Additionally, claims 46-51 recite features similar to those of claims 10-20. Thus, for the additional reasons stated above with respect to claims 10-20, claims 46-51 are patentable over the cited references.

CONCLUSION


In view of the foregoing, Applicant respectfully requests reconsideration of the Examiner's rejections and allowance of claims 1, 4-20, and 38-52 in the present Application. Applicant submits that the Application is in condition for allowance and respectfully requests an early notice of the same.

Please charge all fees in connection with this communication to Deposit Account No. 19-0733.

Respectfully submitted,

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